

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 03/19384

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F21V14/06 F21L4/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F21V F21L F21S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 116 022 A (DAVIS ARIEL R) 31 December 1963 (1963-12-31) column 2, line 1 - line 2 column 6, line 5 - line 26 column 6, line 57 - line 63 figure 15	1,2,7,9, 10,16, 21,22
Y		3-5, 11-13, 17-19
A		8,14,15, 20
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & ' document member of the same patent family

Date of the actual completion of the international search

11 September 2003

Date of mailing of the international search report

17/09/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Lange, C

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 03/19384

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 174 071 B1 (CHAN KWONG CHI) 16 January 2001 (2001-01-16) column 2, line 19 - line 28 column 2, line 43 - line 58 column 2, line 67 - column 3, line 3 column 3, line 19 - line 35 figures 2-4	3-5, 11-13, 17-19
A	----	1,10,16
X	US 6 092 914 A (ESAKOFF GREGORY F ET AL) 25 July 2000 (2000-07-25) column 3, line 9 - line 22 column 4 column 5, line 9 - line 18 claims 1,23,4,10,13,1,17,18,19,22,26,27,29 figures 1-5	1,6-8, 16,20,22
A	----	2,10,14
X	WO 01 98707 A (TANAKA TSUNEMICHI ;ASAOKU MASAKI (JP); ASAKURA KEIJIRO (JP); ISHIZ) 27 December 2001 (2001-12-27) abstract figures 1-3,13	1,2,6,7, 10
A		3,8,11, 16,17,22
A	US 3 896 466 A (KORPERT HEINZ) 22 July 1975 (1975-07-22) column 3, line 23 - line 28 column 3, line 45 - line 61 figures 1,5 -----	1,3-5, 10-13, 16-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Publication No

PCT/US 03/19384

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3116022	A	31-12-1963	NONE	
US 6174071	B1	16-01-2001	CN 2430607 U	16-05-2001
US 6092914	A	25-07-2000	EP 1097341 A1 WO 9967569 A1	09-05-2001 29-12-1999
WO 0198707	A	27-12-2001	JP 2002008404 A JP 2002008418 A EP 1293722 A1 WO 0198707 A1 US 2003076682 A1	11-01-2002 11-01-2002 19-03-2003 27-12-2001 24-04-2003
US 3896466	A	22-07-1975	DE 2259723 A1 DD 105904 A5 FR 2209944 A1 GB 1437619 A JP 49090528 A SU 656553 A3	04-07-1974 12-05-1974 05-07-1974 03-06-1976 29-08-1974 05-04-1979